## NATIONAL RESEARCH COUNCIL

## COMMISSION ON ENGINEERING AND TECHNICAL SYSTEMS

2101 Constitution Avenue Washington, D.C. 20418

BOARD ON ARMY SCIENCE AND TECHNOLOGY

(202) 334-3118 FAX (202) 334-2620 .

November 23, 1994



Dr. Joshua Lederberg Rockerfeller University 1230 York Avenue New York, NY 10021

Dear Dr. Lederberg:

The National Research Council's Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program (Stockpile Committee) is aware of your continuing interest in the U.S. Army's Chemical Stockpile Disposal Program (CSDP). For more than seven years, the Stockpile Committee has been following this disposal program as the Army has carried out research, development, construction, and operations relating to its task to eliminate the nation's stockpile of lethal unitary chemical agents and munitions.

In 1993 and early 1994, the Stockpile Committee, after considering possible and available chemical disposal technologies, their state of research and development (including costs and timing), and the nature of the chemical stockpile itself, endorsed the Army's selection of incineration technology as the essential element of its disposal program. The committee also recommended that the Army accelerate research and development (R&D) into neutralization technologies for destroying chemical warfare agents, followed by certain secondary treatment technologies. For its R&D program, the Army selected the alternatives of standalone neutralization and neutralization followed by biodegradation.

The Stockpile Committee will evaluate the Army's draft criteria for deciding whether to proceed with advanced development and demonstration of an alternative technology. The committee is developing a set of critical factors for assessing the Army's draft criteria, and solicits your input on these critical factors. Here are examples of what may be considered critical factors for the decision criteria:

- risk of release of chemical agent to the surrounding community;
- risk of long-term health effects to the surrounding community;
- process safety within the disposal facility;

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• waste management requirements, including solid or hazardous waste disposal and

waste water discharge;

- potential for incomplete chemical agent destruction;
- requirement for transport of partially treated agent, energetics, or other weapons components;
  - future use of disposal facilities beyond stockpile disposal;
  - delays in stockpile disposal schedule; and
  - cost of implementation.

In order for the committee to consider your input on critical factors, please submit your suggestions to the committee in writing by December 28, 1994, care of:

Mr. Donald L. Siebenaler National Research Council Board on Army Science and Technology 2001 Constitution Avenue, N.W., Room HA 258 Washington, D.C. 20418

Information regarding the Army's research and development program on neutralization-based alternatives can be obtained from LTC Steven Landry in the Office of the Program Manager for Chemical Demilitarization, (410) 671-1438.

In addition to the above request for your input on critical factors, the Stockpile Committee has initiated a site-by-site outreach effort to learn more about public opinion and reaction to the overall Chemical Stockpile Disposal Program. This will begin in January at the stockpile site in Maryland, as detailed in the enclosed letter.

Sincerely yours,

Richard S. Magee, Chairman

Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program

Richard S. Majes DLS

Enclosure